

# Internet Security as a Survival Skill

*Weaving Security into the Fabric of our Society*



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## Social Survival Skills



- Hunting
- Fighting
- Clothes making
- Basket weaving

# The Automobile

- School crossing guards
- Traffic safety taught in grade school
- Driver's education taught in high school
- Insurance discounts for completing driver's training courses



# Rate of Change

- 1922 - 12.6 million cars in the world – NY Times
- 1970 – 375 million cars in the world – Worldmapper
- 48 years - 29X more cars
- 1990 3 million Internet users – Worldmapper
- 2010 2.05 billion Internet users – Internetworldstats.com
- 20 years – 683X more internet users



# Social Engineering

- As old as civilization
- Risky to be seen by the victim
- Phone calls could be traced
- Slow and expensive to send mail
- Not generally scalable to mass attacks
- Not a pervasive threat
- Low return on educational investment



## The Internet – A Game Changer

- Relative anonymity – Reduced risk of getting caught
- Unseen victims – Reduced moral compunction
- Virtually zero cost to perform attacks
- Low individual loss doesn't cross prosecution limit
- International issues hinder prosecution
- Technology became ubiquitous faster than society could react



# The Stark Reality

- **Cybercriminals have a virtually free means to attack over a billion users**
- **Much, if not most, of the malware attacks we see involve social engineering**
- **Social engineering attacks are costly and pervasive**
- **Social engineering defensive education is not a part of our social education**



# What it's going to take

- **We are at least 2 generations away from pervasive education**
- **Educational attempts to date have generally been ineffective**
- **A generation of teachers will need to learn how to teach**
- **Curriculum must begin no later than 1st grade**
- **Education must continue through high school**
- **Focused training for social engineering attacks is required**
- **You have to train your employees now!**



# Anti-Phishing Education

## *Carnegie Mellon Researchers Fight Phishing Attacks with Phishing Tactics*

*Early findings by Carnegie Mellon University researchers suggest that people who are suckered by a spoof email into visiting a counterfeit Web site are also people who are ready to learn their lesson about "phishing" attacks.*

*...64 percent of phishing emails identified by the embedded training group versus 7 percent identified by the other two groups.*



## Out on a tangent

- The quantum angle
- Rupert Sheldrake's "morphogenetic field"
- Each species has a "group mind"
- Habits and behaviors build up in a species through "morphic resonance"
- See "A New Science of Life" for more on M-Fields
- But even if we disregard this...



# The Fear of Training

- "What if we train our employees and they leave?"
- To which noted leadership consultant Mark Sanborn replies
- "What if we don't and they stay?"
- Of course the answer to that is...



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## THREAT LEVEL



PRIVACY, CRIME AND SECURITY ONLINE

### Top Federal Lab Hacked in Spear-Phishing Attack

By [Kim Zetter](#) April 20, 2011 | 1:16 am | Categories: [Breaches](#), [Crime](#), [Hacks and Cracks](#)

The Oak Ridge National Laboratory was forced to disconnect internet access for workers on Friday after the federal facility was hacked, and administrators discovered data being siphoned from a server.

Only a "few megabytes" of data were stolen before the lab discovered the breach and cut internet access to prevent further exfiltration from the sensitive government facility, according to Thomas Zacharia, deputy director of the lab.

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pediatric cardiac surgery department, creating a regulatory nightmare for the hospital.



# Technology is Important

- Yes you do need security products
- Yes you do need policy
- Education is often required to understand policy
- Education increases the efficacy of security products
- Defense in depth strategies require multiple layers of technology, policy, and education
- Crime is a social problem
- Technology rarely, if ever, solves social problems



## ESET Offers Technology Solutions

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- Multi-endpoint support including mobile, virtual, server, workstation, more
- Single Management Console
- Come to the ESET booth to arrange a free business trial



# ESET is an Educational Leader

The ESET lead “Securing Our eCity” is an award winning educational effort that includes collaboration from over 200 public and private sector stake holders.

Securing Our eCity was recognized by the Department of Homeland Security for the Best Local/Community Plan in their National Cybersecurity Awareness Challenge

Come to <http://www.securingourecity.org> to see for information on free educational workshops



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